Rev Account Stud (2010) 15:578–583
DOI 10.1007/s11142-010-9125-4

Discussion of "Are CEOs compensated for value destroying growth in earnings?"

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Published online: 16 March 2010

Abstract This discussion provides several explanations for the evidence presented in Balachandran and Mohanram (2010) that are consistent with efficient contracting. I also show that—contrary to the suggestion of the title—CEOs do not benefit from value destroying growth in earnings. Finally, I argue that there is no conclusive evidence that corporate investments destroy value.

Keywords Executive compensation · Profitability · Corporate investments

JEL Classification G34 · M41

1 Introduction

It is well established that top executive compensation depends not only on past stock returns but also on accounting earnings, because accounting earnings can be more informative about the executive's actions than stock returns (Sloan 1993). The main contribution of Balachandran and Mohanram (2010) is to show that different types of earnings growth affect executive compensation differently. Balachandran and Mohanram (2010) distinguish between earnings growth that is due to improved profitability and growth that is generated by investments. While both types of earnings growth lead to higher executive pay, growth from investments is rewarded more than growth from improved profitability. This is an important finding that warrants further analysis.

Balachandran and Mohanram (2010) also show that the two types of earnings growth have different effects on contemporaneous and future stock returns. While

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growth from improved profitability is associated with positive returns, growth from investment is associated with significantly negative returns. Hence, earnings growth from investment appears to destroy shareholder value but is rewarded more than the more valuable earnings growth from improved profitability. The title of the paper even suggests that CEOs benefit from destroying shareholder value by way of investments. Balachandran and Mohanram (2010) conclude that either compensation committees do not understand the difference between the two types of earnings growth or that executive compensation practice is not efficient as it does not reflect the interests of shareholders.

In this discussion, I point out that these conclusions are premature. In Sect. 2, I argue that the empirical evidence does not support the view that corporate investments destroy shareholder value. It is true that investments are associated with negative current and future stock returns, but they are also associated with positive announcement returns that typically occur in the year(s) before the actual investment is made. In Sect. 3, I show in a back-of-the-envelope calculation that CEOs do not benefit from value-destroying growth in earnings as the title of the paper wrongly suggests. Balachandran and Mohanram (2010) only consider the growth of annual CEO pay, but they do not take into account changes in the value of the stock and option holdings of the CEO. If these holdings are correctly taken into account, CEOs lose a substantial amount of wealth if they bring about "value-destroying growth in earnings."

The core result of the paper—that earnings growth from investments is rewarded more than growth from improved profitability—is not affected by this criticism. In Sect. 4, I provide several arguments that can explain this finding in an efficient contracting environment even if earnings growth from investments destroys shareholder value. Therefore, there is no need to resort to the residual explanation that directors "don't get it" or that contracting is inefficient.

2 Do investments destroy shareholder value?

Titman et al. (2004) show that firms with abnormally high investments underperform their benchmarks for several years after the investments have been done. This finding is mirrored in Balachandran and Mohanram's (2010) result that earnings growth from investments is associated with significantly negative future returns. However, McConnell and Muscarella (1985) find substantial abnormal returns to the announcement of major capital expenditure plans. For plans to increase the budget, they find an abnormal return of +1.0%, compared with −1.4% for plans to reduce the budget. As major investment plans are announced several months or even years in advance, Balachandran and Mohanram's (2010) analysis of current and future returns misses this effect. As a consequence, we cannot conclude from Balachandran and Mohanram's (2010) evidence that earnings growth from investments destroys shareholder value. We can merely conclude—as Titman et al. (2004) do—that investors seem to be too optimistic at the time of the announcement of an investment plan, so that these firms underperform for a couple of years after the announcement.

Moreover, Balachandran and Mohanram (2010) implicitly suggest that CEOs can choose freely between the two ways to improve earnings growth, but this might not be the case in practice. If in the 1980s a producer of typewriters started to invest heavily into computer technology, it was hardly the investment that led to lower future returns, and improving profitability or doing nothing was not an option. Therefore, the negative association between investments and future returns does not necessarily imply that it is the investment that causes these lower returns.

3 Are CEO's rewarded for value-destroying investments?

In this section, I quantify the effect of "value-destroying growth in earnings" on the CEO's personal wealth in a back-of-the-envelope calculation. The aim is to see whether CEOs are really rewarded for investments that destroy shareholder value. To keep the calculation simple, I abstract from the problems raised in the previous section and assume that Table 3 in Balachandran and Mohanram (2010) captures the complete effect on firm value of the CEO's decisions.

According to Balachandran and Mohanram's (2010) Table 2, the interquartile range of growth from investment $\Delta IC_{t-1} \cdot WACC_t$ is $1.00\% - (-0.01\%) = 1.01\%$. Let us consider a CEO who increases earnings growth from investment by this amount. Together with the results shown in Table 3, this would in expectation lead to a contemporaneous stock return of $-0.23 \cdot 1.01\% = -0.23\%$ in the current year and $-0.85 \cdot 1.01\% = -0.86\%$ in the following year. So the investment results in a drop of shareholder wealth by $0.23\% + 0.86\% = 1.09\%$. To see the effect on the CEO's compensation, we plug these numbers into the estimated equation from Table 4. The growth in total CEO compensation associated with the 1.01% earnings growth from investment is:

$$\underbrace{2.39 \cdot 1.01\%}_{\text{reward for earnings growth from investment}} + \underbrace{0.18 \cdot (-0.86\%)}_{\text{punishment for drop in stock price}} = 2.26\%.$$

For the median CEO whose total compensation is \$2.2 m (from Table 1), this corresponds to an additional reward of \$50,000. So the CEO seems to be rewarded for value-destroying growth in earnings as the title of Balachandran and Mohanram's (2010) paper suggests.

However, this analysis does not take into account the CEO's holdings of stock and stock options that have been awarded to her in previous years. Hall and Liebman (1998) show that most of the pay to performance sensitivity in executive compensation is attributable to changes in the value of CEO holdings of stock and stock options, and very little is due to changes in current compensation. According to Dittmann and Maug (2007) in the year 2000, a typical CEO owned stock and options with a market value of \$6.6 million and \$6.1 million, respectively, and the median option delta (the sensitivity of the option value to a change in the stock price) is 0.86. Therefore, the effect of a stock price drop of 1.09% on the CEOs portfolio is $-1.09\% \cdot (\$6.6 \text{ million} + \$6.1 \text{ million} \cdot 0.86) = -\$129{,}000$. If we add this loss to the gain in current compensation of \$50,000, the total effect of the

value-destroying investment strategy on the CEO's wealth is \$50,000–\$129,000 = −\$79,000. Consequently, the CEO is not rewarded but rather—and quite appropriately—punished for value-destroying investments.

While this rough calculation shows that CEOs are not rewarded for value-destruction, it is still true that CEOs are punished less for the destruction of shareholder value through investments than for other forms of shareholder value destruction. In the next section, I discuss a couple of reasons why this might be the case.

4 Why are CEOs rewarded for investments?

It is puzzling that earnings growth from investments is rewarded more than earnings growth from increased profitability, even though the authors present some evidence that shareholders profit more from the latter type of growth. This section proposes four explanations for this finding that are consistent with the notion of efficient contracting. The first three arguments are based on the idea that investments can change the firm (and its requirements) substantially and that these changes are reflected in CEO pay. The fourth argument focusses on the incentives for CEOs to do investments.

4.1 Bigger firms need more talent and effort

It is well established that CEO pay increases with firm size. Gabaix and Landier (2008) argue that scarce talent is more valuable in bigger firms, so that the most talented CEOs end up in the biggest firms with the highest pay package. In their model, a firm that has grown faster than other firms would sack its CEO and hire a somewhat more talented CEO at a higher cost. In reality, however, there are considerable switching costs and substantial uncertainty about CEO talent that prevent firms from replacing their CEOs too often.

So why do firms pay their old CEO more after (potentially value-destructing) earnings growth through investments? Following Gabaix and Landier (2008), it is efficient to run the new, bigger firm with a more talented CEO than the old, smaller firm. Ex ante, however, it might not be clear whether the old CEO has—or can develop—the required skills to run the bigger firm. Therefore, the firm could pay the old CEO more under the assumption that she has the required skills. If it turns out after awhile that she has not, she is replaced with a more talented CEO. If the old CEO can deliver, higher pay is necessary in order to keep her. On the other hand, if she is not up to the task, she is dismissed and higher pay can be understood as a compensation for the increased probability of being dismissed.

A related argument is that running a bigger firm and overseeing major investments requires additional effort that must be compensated. To sum up, higher pay could be justified by the higher talent or effort that is needed to run the enlarged firm.

4.2 CEO turnover and CEO pay

Dittmann et al. (2010) show that the optimal contract for a loss-averse CEO with an exogenous reference wage features two regions: below a certain stock price, the CEO is dismissed and receives a very low payout. For higher stock prices, she receives a wage above her reference wage, and in this region her wage increases with the stock price. Hence, a CEO with a higher reference wage receives higher on-the-job pay. On the other hand however, a higher reference wage is associated with a higher dismissal probability. A CEO who "demands more" gets more on-the-job but will also be dismissed faster.

We know little about the process how reference wages are formed. A plausible hypothesis is that CEOs compare themselves with their peers in other companies of comparable size. If a CEO undertook an investment program that increased the firm's size, the composition of this peer group changes and the CEO compares herself with the CEOs in bigger firms than before. As bigger firms in general pay higher wages to their CEOs, the CEO's reference wage increases. According to Dittmann et al. (2010), this would then lead to an increase in the CEO's pay and, at the same time, to an increase in her dismissal probability. There is anecdotal evidence that big investments, and in particular mergers and acquisitions, make the dismissal of the initiating CEO more likely. The higher pay can then be interpreted as a compensation for this higher dismissal probability.

This argument shows that it is not enough to look only at changes in compensation, as Balachandran and Mohanram (2010) do. We also must take into account the likelihood of dismissals before we can conclude that CEOs benefit from a given action.

4.3 Investments, risk, and risk-premium

Major investments are often associated with additional uncertainty, so that investments are likely to increase the firm's stock price volatility. In contrast, changes in the firm's profitability are unlikely to be related to firm risk. As CEOs are required to invest a large part of their wealth in their own firm, they must be compensated for the cost of not being diversified. This risk-premium increases with the firm's volatility and should consequently be larger for firms that have just done substantial investments.

4.4 Incentives to invest in risky projects

CEOs will be hesitant to take any action that increases their firms' risk. A big part of their wealth is tied to firm value, so any increase in firm risk would also make their personal investments riskier. If investments increase firm risk, CEOs need additional incentives to take investments that are worthwhile for shareholders (see Guay 1999 and Dittmann and Yu 2010). Promising CEOs a pay rise if investments have been made is one possibility to generate appropriate risk-taking incentives.

Acknowledgments I am grateful to Mozaffar Khan and to the participants of the 2009 Review of Accounting Studies Conference in Tilburg for helpful comments and suggestions.

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